DOCUMENT RESUME

ED 443 103 CS 014 059

AUTHOR Flynn, Anne; Govis, Alex
TITLE Improving Phonemic Awareness through Direct Instruction.
PUB DATE 2000-05-00
NOTE 55p.; M.A. Research Project, Saint Xavier University and SkyLight Professional Development.
PUB TYPE Dissertations/Theses (040)
EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS Action Research; *Instructional Effectiveness; Kindergarten; Kindergarten Children; Primary Education; *Reading Improvement; Reading Research; *Reading Skills; *Spelling
IDENTIFIERS *Direct Instruction; *Phonemic Awareness

ABSTRACT

This report describes a program for improving phonemic awareness skills in kindergarten students. The targeted population consisted of kindergarten students in two elementary schools. The schools are located in the northern suburbs outside a large Midwestern city. The problem of poor phonemic awareness skills was documented with a parent survey, a phonemic awareness spelling test, and teacher checklists. Analysis of probable cause indicated that there were poor phonemic awareness skills among kindergarten students. This negatively affected student's ability to learn to read and spell. Review of the research indicated that students were not given specific skill instruction in phonemic awareness. A review of the solution strategies suggested by other researchers, combined with an analysis of the problem setting, resulted in the development of a specific program for phonemic awareness skills instruction. The program included direct instruction in the five stages of phonemic awareness and its extension into the written language. Post intervention data indicated an increase in phonemic awareness skills. (Contains 20 references and 4 figures of data. Appendixes contain survey instruments, a checklist, and a spelling test.) (Author/RS)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 443 103

Improving Phonemic Awareness Through Direct Instruction

Anne Flynn
Alex Govis

An Action Research Project Submitted to the Graduate Faculty of the
School of Education in Partial Fulfillment of the
Requirements for the Degree of Master of Arts in Teaching and Leadership

Saint Xavier University & Skylight Professional Development
Field-Based Masters Program
Chicago, Illinois
May 2000

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

CS 014 059

BEST COPY AVAILABLE

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

A. Govis

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

SIGNATURE PAGE

This project was approved by

Susan Marcus, PhD

Advisor

Robert Brooks

Advisor

Beverly Hulley

Dean, School of Education

Abstract

This report describes a program for improving phonemic awareness skills in kindergarten students. The targeted population consisted of kindergarten students in two elementary schools. The schools are located in the northern suburbs outside a large Midwestern city. The problem of poor phonemic awareness skills was documented with a parent survey, a phonemic awareness spelling test, and teacher checklists.

Analysis of probable cause indicated that there were poor phonemic awareness skills among kindergarten students. This negatively affected student's ability to learn to read and spell. Review of the research indicated that students were not given specific skill instruction in phonemic awareness.

A review of the solution strategies suggested by other researchers, combined with an analysis of the problem setting, resulted in the development of a specific program for phonemic awareness skills instruction. The program included direct instruction in the five stages of phonemic awareness and it's extension into the written language.

Post intervention data indicated an increase in phonemic awareness skills.

TABLE OF CONTENTS

CHAPTER 1 - PROBLEM STATEMENT AND CONTEXT

General Statement of the Problem....1

Immediate Problem Context....1

National Context of the Problem....6

CHAPTER 2 - PROBLEM DOCUMENTATION

Problem Evidence....8

Probable Causes Literature Based....12

Probable Causes Site Based....13

CHAPTER 3 - THE SOLUTION STRATEGY

Literature Review....15

Project Objectives....23

Project Action Plan....23

CHAPTER 4 - PROJECT RESULTS

Historical Description of the Intervention....32

Presentation and Analysis of Results....33

Conclusions and Recommendations....37

REFERENCES....39

APPENDIX-A....41

APPENDIX-B....45

APPENDIX-C....47

CHAPTER 1

PROBLEM STATEMENT AND CONTEXT

General Statement of the Problem

The students of the targeted kindergarten classes exhibit some deficiencies in development of phonemic awareness. As a result of these deficiencies students lack the ability to hear the sounds that make up words, to see relationships between sounds, and to manipulate and rearrange sounds to create new words. This interferes with their learning to read. Evidence of the problem includes teacher observations, anecdotal records and phonemic awareness assessments.

Immediate Problem Context

Research is being conducted in two sites. They will be identified as sites A and B.

Site A

Site A is in a suburb near a large Midwestern city. This school serves students from prekindergarten to second grade. There are two other schools in the district. One school serves students from third grade to fifth grade, while the other serves sixth grade through eighth grade. School A was built in 1961 and room additions were made in 1993. It is a brick building that consists of 28 classrooms, a gymnasium, multipurpose room, Library Media Center, and a computer lab. There are currently 446 elementary students enrolled.

According to the 1998 School Report Card, the ethnic background of the student body is 56.9% White, 29.6% Asian/Pacific Islander, 7.3% Hispanic, and 6.2% Black. Attendance is rated at 94.7% and the student mobility is 13.9%. There are 11.2% students with limited English proficiency. Students from low-income families are 21.1% of the student body. The instructional expenditure per pupil is $4,038, while the operating expenditure per pupil is $6,988.

The targeted school employs 29 certified staff members to provide education to the primary students. All staff members are White with 99% being female and 1% male. The teaching staff averages 13.6 years of teaching experience and 41.1% hold a master's degree or above. The average teacher's salary is $50,243, while administrative salaries average $84,395(School Report Card 1998).

The average class size in the elementary school is 23.2 students. There are two special education preschool classes, six half day kindergarten classes, six first grade classes, and six second grades classes. In addition there is a self-contained special education class for first and second graders, as well as a Title 1 reading program, which is a federally funded reading program. A social worker, speech therapist, occupational therapist, Learning Disabilities/Behavior Disabilities resource teacher, physical therapist and psychologist also provide additional services to the elementary students.

There is currently a district wide initiative to improve language arts skills. Improved technology has also been a recent goal and each classroom utilizes a Macintosh computer with a printer. Classroom instruction is geared toward meeting the students individual needs through a variety of teaching strategies. There is art instruction and physical education for all students, as well music education for first and second grades. Each classroom may utilize the computer lab and Library Media Center on a block schedule. Students are learning conflict resolution skills through another recently adopted program.

In order to meet the needs working parents, the school and local park district provide a before school and after school program. The morning program begins at 6:30 a.m. and continues until 8:30 a.m., while the afternoon program is from 3:15 p.m. until 6:30 p.m. In addition for working kindergarten parents there is an afternoon kindergarten program to extend the kindergarten day.

The kindergarten program is geared toward active learning. The students are encouraged to learn skills through a variety of hands on experiences as well as teacher directed skill instruction. A large portion of the day is spent in learning centers.

Site B

The population of the school at Site B is 332 students in grades kindergarten through five. The student population of the school is 93.5 percent White, 3.9 percent Asian/Pacific Islander, .3 percent Black, 2.2 percent Hispanic and .2 percent Native American. Of the targeted population, 100 percent are above low income status and .8 percent are identified as limited English proficiency.

School attendance records at site B indicate no chronic truants and a mobility rate of 1.2 percent. Ninety-six percent of the students enrolled at Site B are in attendance daily (State School Report Card, 1998).

The school structure is a two story kindergarten through grade five building built in 1953. Presently, there are 32 classrooms on two floors, a multi-purpose room, an auditorium, and a Learning Resource Center with a computer laboratory. Each classroom is equipped with at least two Power Macintosh computers.

Site B has a male principal, two male teachers and thirty five female teachers. Twenty three teachers are employed to teach self contained classrooms. Fourteen teachers are employed to teach special education, gifted, physical education, art, music, computers and library. The school also employs nine full-time teacher assistants.

In the school district of site B, 46.1 percent of the staff have earned a Bachelor's degree, and 53.9 percent have a Master's degree or above. The average years of teaching experience in the district is 12.6 years. The average salary for a teacher is $48,720 and the average salary for an administrator is $89,908. The operating expenditure per pupil in the district is $7,833. School Site B student to teacher ratio is 18.8 :1 in the kindergarten classes (State School Report Card, 1998).

School Site B has four sections at each grade level, Kindergarten through fifth grade. The school houses one of two special needs kindergarten classes that serve the district. There are three educational resource classrooms, one classroom for a pull out gifted program for grades three through six, and a primary enrichment program.

The adopted kindergarten language arts curriculum is the Alpha Time*Land of the Letter People* Series and the mathematics program is Math Their Way.

The Community Setting

Site A

The community setting site A is a suburb of a large Midwestern city. This suburb was founded in 1888 and is 10.2 square miles. The median home value is $194,503 and the median age of a resident is 44.4 years. The community is made up of 75.3% single-family homes and 24.7% multifamily dwellings. There are 78.7% White, 4.2% Hispanic, 2.0% Black, and 15.2% unknown. There has been a substantial increase in the amount of recent immigrants to this community over the last ten years.

This community has a large park district that offers a variety of services to the public. The park district recently renovated it's health and recreation center, it's pools and it's senior citizen center. In addition this community has a large modern library and a several retail shopping malls.

The population of this suburb is 58,225. The median family income is $59, 384.

14.6 percent of the population have less than a high school education, 22.8 percent are high school graduates, 20.6 percent have some college, 5.4 percent have an associate's degree, while 36.8 percent have a Bachelor's degree of higher.

The district of site A has had a steady increase in population over the last few years. The community voted on a referendum in 1999 to add 4 classrooms to the middle school to accommodate the increase in population. The district's superintendent was hired in 1992. He has made technology a priority, as well as language arts. The district has recently adopted a seven year cycle approach to curriculum development which puts each subject on a seven year cycle for reevaluation. Over the past two years the district has adopted a new spelling , social studies, and language arts curriculum.

Site B

The community setting of site B is a suburb of a large Midwestern metropolitan city. The suburb was incorporated as a city in 1910. It has a land area that is 6.9 square miles, and a city form of government, with a mayor and a city council administered by a professional city manager. The park district provides a variety of programs for community members of all ages. The community has a contemporary library system, a hospital, nineteen places of worship, a commuter rail station, retail shopping and several corporation headquarters. An international airport is six miles outside the community. Currently, there is no industry.

The community surrounding School Site B consists of quiet tree lined streets. The homes were built between 1920 and 1960 although a recent trend has been to tear down older homes and build larger new homes. The number of households in this community totals 13,132. Eighty seven percent of the housing stock consists of single family units. The median home value is $258,030.

The population of this suburb is estimated at 35,850 people. Of this population, 46.8 percent are male, and 53.2 percent are female. The race distribution within the suburb is, 96.4 percent White, 1.3 percent Hispanic , 0 percent Black and 2.3 percent other. The reported ancestries with the highest percentages of the population include, 23.6 percent German, 13.7 percent Irish, 11.8 percent Italian, and 14.5 percent Polish.

The median family income, in this suburb is $77,051 and only 4.3 percent have household incomes below $15,000. Of the population that is 18 years of age and over, 37.4 percent have attained a Bachelor's or Graduate degree. Seventy-seven percent of the working people of this suburb are employed in professional, managerial, sales,or administrative support positions.

The district of School Site B has been experiencing an increasing enrollment after many years of steady decline. In 1997, the community past a referendum to build a new middle school. This moved the six grade classes from the existing five elementary buildings to two middle schools. The district's superintendent was hired in 1995. He has been making strong efforts to build school / community relations. He has organized several focus groups with school staff, school administrators and community members. A good relationship already seems to exist. Many of the parents with children in the district's school system graduated from one of the schools.

National Context of the Problem

There has been a great deal of discussion recently in the educational community on the topic of phonemic awareness. Phonemic awareness is defined by Fitzpatrick as:

> The knowledge of how language works is called *phonemic awareness.* It is the ability to examine language independent of meaning (hear the sounds that make up the words), to attend to sounds in the context of a word (see relationships between sounds), to manipulate component sounds (alter and

rearrange sounds to create new words). (Fitzpatrick, 1997)

One of the common characteristics of students who experience severe difficulty learning to read is their inability to use the phonologic structure of language to read and write an alphabetic system.(Good, Simmons, and Smith, 1998) In other words, students who can not distinguish individual sounds in a word will not be proficient readers or spellers. It essential to teach these skills at the appropriate age.

Current methods of alphabetic instruction and prereading skills are often lacking in direct phonemic awareness instruction. As a result, many students have inadequate preparation for literacy and success in beginning reading. Children need to be able to hear sounds, know their positions and understand the role they play within a word. Children often hear words as one big sound. If they are not given the proper skills to identify phonemes they will lack an essential tool needed for reading. The ability to identify the sounds within a word (phonemes) is a difficult task, since sounds are abstract in nature. (Fitzpatrick, 1997)

English and other alphabetic languages map speech to print at the level of phonemes. Our written language is a representation of the sounds of our spoken language. Therefore it is critical to understand that our speech is made up of sounds. Without this insight, children have difficulty understanding the logic of the alphabetic system. (Yopp and Yopp, 1997.) Phonemic awareness is vital to early reading instruction. Fitzpatrick states:

> Students need to know phonemic sounds, but it is vital to successful decoding (reading) and encoding (spelling) that they know how to apply their phonological skills. Studies show that an absence of phonemic awareness is characteristic of students who are failing, or have failed, to learn to read. The implication is clear-phonemic awareness can significantly bridge the critical gap between inadequate preparation for literacy and success in beginning reading. (Fitzpatrick, 1997)

CHAPTER 2

PROBLEM DOCUMENTATION

Problem Evidence

In order to document the extent of student phonemic awareness, the researchers used an age appropriate developmental spelling test, a parent survey and a weekly journal progress checklist. The age appropriate developmental spelling tests were given and assessed by the teacher / researcher. The test consisted of seven spelling words, each given a point value of five. The points assigned ranged from: one point for a correct beginning sound, two points for beginning and ending sounds, three points for beginning, ending and appropriate long or short vowel sounds, four points for beginning, ending, appropriate long, short vowels plus an attempt to mark long vowels as well as correct blend, five points for correct spelling of word.

The age appropriate developmental spelling test was adapted from the Darrell Morris Developmental Spelling Test by the researchers (Appendix A) to aid in the assessment of skills. The students were assessed individually or in small groups of four or less. Students assessed in groups were not allowed to view each others papers. The researchers explained to the students that they were to try and write each word that was read to them. The students were to do their best to write down all sounds that they heard in each word. A summation of the number of points the students received on the pre test is presented in Figures 1 and 2.

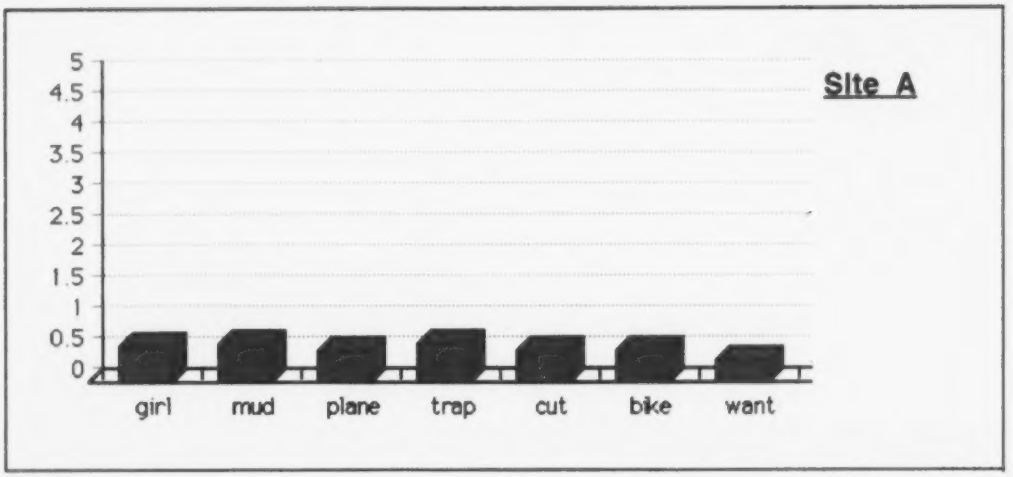

Figure 1 Results of developmental spelling test from targeted students during the Fall of 1999 - 2000 school year from Site A.

At Site A, eighteen out of eighteen students were involved in this testing process during the first week of the intervention. For the first word (girl), the individual scores ranged from zero to three points. The class average was 56% of one point. For the second word (mud), the individual scores ranged from zero to three points. The class average was 61% of one point. For the third word (plane), the individual scores ranged from zero to three points. The class average was 61% of one point. For the fourth word (trap), the individual scores ranged from zero to four points. The class average was 61% of one point. For the fifth word (cut), the individual scores ranged from zero to four points. The class average was 50% of one point. For the sixth word (bike), the individual scores ranged from zero to three points. The class average was 50% of one point. For the seventh word (want), the individual scores ranged from zero to three points. The class average was 33% of one point.

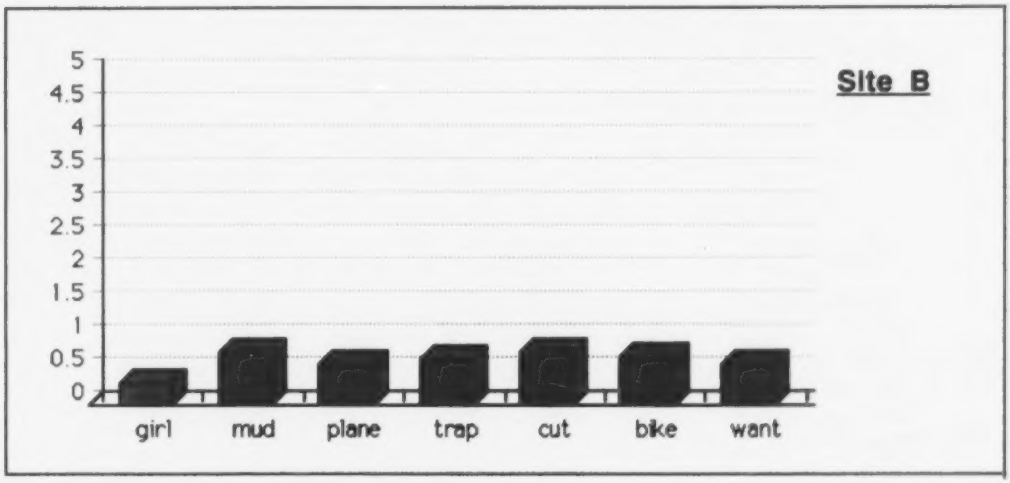

Figure 2 Results of developmental spelling test from targeted students during the fall of 1999 - 2000 school year from Site B.

At Site B, eighteen out of eighteen students were involved in this testing process during the first week of the intervention. For the first word (girl), the individual scores ranged from zero to three points. The class average was 39% of one point. For the second word (mud), the individual scores ranged from zero to five points. The class average was 78% of one point. For the third word (plane), the individual scores ranged from zero to three points. The class average was 61% of one point. For the fourth word (trap), the individual scores ranged from zero to five points. The class average was 67% of one point. For the fifth word (cut), the individual scores ranged from zero to five points. The class average was 78% of one point. For the sixth word (bike), the individual scores ranged from zero to three points. The class average was 72% of one point. For the seventh word (want), the individual scores ranged from zero to three points. The class average was 61% of one point.

In addition to the developmental spelling test, the researchers also distributed a parent survey to assess pre-reading skills and students' phonemic awareness. Parents were asked to choose an easy to read book with approximately fifteen words or less on each page. They were to sit together so they could both see the book properly. Parents were instructed to casually ask questions about the book and put check marks besides the questions that were answered correctly. These surveys demonstrated that most students exhibited pre-reading skills and familiarity with books and print. At site A, 81% of the prereading questions were checked as correct. At site B, 72% of the prereading questions were checked as correct. The students did not do as well on the phonemic awareness questions. At site A, 69% of the questions on phonemic awareness were checked as correct. At site B, 42% of the questions on phonemic awareness were checked as correct.

Furthermore, each researcher kept a weekly journal progress checklist. This weekly checklist consisted of three developmental stages for writing. Stage One included using pictures to write and scribbling or using nonsense symbols to write. Stage Two includes writing random letters, copying words seen around the classroom, and writing random words from memory. Stage Three consists of spelling the first letter of a word and attempting to sound out a word beyond the first letter. Stage Four consists of phonetically spelling most sounds of each word combined with conventional spelling and writing in sentence form.

At site A, it was found that during the first week on the action plan, 83% of the students were at stage one in their writing, while 11% were at stage two and 6% at stage three. At site B it was found during the first week of journal writing that 100% of the students were at stage two.

Probable Causes Literature Based

The literature suggests that students lacking phonemic awareness will have a difficult time learning to read and write. Torgesen (as cited in Good, Simmons and Smith, 1998) defines phonemic awareness as "ones's sensitivity to, or explicit awareness of, the phonological structure of words in one's language." More specifically, Richgels (1996) defines phonemic awareness is by as "*conscious* attention to phonemes, which are units of sound that speakers and listeners *unconsciously* combine and contrast to produce and perceive words in spoken language."

Current educational research has found that often children who are raised in less print-rich environments have a more difficult time learning to read. Lyon (1998) states that "children raised in poverty, those with limited proficiency in English, those from homes where the reading levels and practices are low, and those with speech, language and hearing handicaps are at increased risk of reading failure." In addition Adams(1998) reports, "Research indicates that, without direct instructional support, phonemic awareness eludes roughly twenty five percent of middle-class first graders and substantially more of those who come from less literacy-rich backgrounds." Adams (1998) also states, "Poorly developed phonemic awareness distinguishes economically disadvantaged preschoolers from their more advantaged peers."

Juel (as cited in Murray,1998) found in his research that "Children with little phoneme awareness usually struggle in learning to read and spell words, developing a wide achievement gulf between themselves and peers who are phonemically aware." Stanovich also found (as cited in Murray,1998) that, "Explicit instruction in phoneme awareness may help these children avoid reading delay by gaining an early insight into the workings of their alphabetic system. It has been found that children must go beyond unconscious use of phonemes, as in the use of oral language, when they learn to read and write." Richgels (1996) states that, "Conscious attention to

phonemes is involved when they isolate sounds in words during invented spelling or use the sounds associated with letters to identify words and recognize word families."

Probable Causes Site Based

Site A

This researcher has observed that many students at site A come from families with limited proficiency in English and homes where the reading levels and practices in the English language are low. This in turn has an effect on the development of phonemic awareness skills. As stated in Chapter 1, this site is populated by families of many different ethnic backgrounds. According to the 1998 School Report Card, the ethnic background of the student body is 56.9% White, 29.6% Asian/Pacific Islander, 7.3% Hispanic, and 6.2% Black. There are 11.2% students with limited English proficiency. The heterogeneity of the community is one of the observed reasons why site A appears to have a low level of phonemic awareness skills.

Site B

This researcher has observed that the students at site B, like most children entering kindergarten, come to school with a wide range of physical, social and intellectual aptitudes and abilities. Most of these students have come from literacy rich environments. They have been read to often and have been exposed to meaningful reading and writing throughout their lives. The majority of these students have attended preschool programs before entering kindergarten.

The students at site B seem to lack phonemic awareness primarily because of their developmental levels. As these students enter kindergarten, most are reaching a point of being ready to develop their phonemic awareness. These students have only lacked being given direct instruction in phonemic awareness at a time when they were

ready developmentally.

The overwhelming evidence points to the need for direct instruction of phonemic awareness in early primary education. Smith *et al.* (as cited in Good, Simmons and Smith, 1998) state that, "Although research has not definitively concluded which dimensions of phonological awareness (e.g. segmentation, identity, blending) are obligatory for early reading, converging evidence underscores the importance of explicit phonological awareness instruction prior to formal alphabetic awareness instruction, especially for children with deficits in this area." Good, Simmons and Smith (1998) continue: "There is no question that students low in phonological awareness are at risk for reading failure and that phonological awareness instruction can ameliorate that risk."

Adams also believes in the direct teaching of phonemic awareness. He states that, "Research clearly shows that phonemic awareness can be developed through instruction and, furthermore, that doing so significantly a accelerates children's subsequent reading and writing achievement." (1998)

Current literature seems to agree that phonemic awareness is critical to student reading success. Some children seem to acquire it naturally but many need direct instruction in phonemic awareness to build the skills necessary for future reading and writing success.

CHAPTER 3

THE SOLUTION STRATEGY

Review of the Literature

The environment in schools today is filled with a deep concern regarding students' reading skills. Schools have considered several different approaches to beginning reading. The two main programs have been the "whole language" approach and the phonics method. Historically, schools have aligned themselves strongly with one program or the other. The two sides seem adamant that their side is the one and only way to teach reading. Collins stated, "A war is on between supporters of phonics and those who believe in the whole-language method of learning to read; caught in the middle-the nation's schoolchildren" (1997).

The whole language camp believes that beginning readers start with whole pieces of children's literature and only be given indirect instruction as to how it all works. The phonics camp believes beginning readers should start with simplified text in order to learn sound-symbol relationships through direct instruction. Increasingly it has become apparent to those who teach reading that both sides have their merits and their weaknesses. Reading teachers are beginning to use a hybrid that combines the best of both philosophies. This hybrid has been termed, "The Balanced Approach". Lapp and Flood found that,

> A balanced approach toward literacy instruction creates harmony in the learner's and teacher's mind. This approach helps children integrate what they already know with new strategies, skills, and content that will

> best serve their new and developing reading interests. A balanced approach ensures that this can become a reality when children are taught language arts skills and strategies in a context that invites them to explore the wonderful world of books (1997).

Lapp and Flood (1997) went on to say that, "Learning to read is made much easier when children have acquired three prerequisite understandings about print: print carries messages, printed words are composed of letters, and letters correspond to the sounds in spoken words."

The balanced approach is not really new to classroom teachers. Most beginning reading teachers in trying to find the best way to teach their students already use some combination of approaches. Burns stated,

> Classroom teachers are seeking solutions that span philosophies but are not just a patchwork of incompatible practices. They want children to know how to take apart a strategy, learn how it works, then put it back together in the context of reading for understanding. They want each part of the reading curriculum to build on and strengthen the others. Classroom practitioners are not accepting all or nothing methodologies but instead are looking for a feasible and compatible blend of practices - a balanced approach to teaching reading (1999).

One thing that researchers have recently begun to agree about, within the context of the balanced approach, is the importance of phonemic awareness. Stanovich stated, "Educators are always looking for valid and reliable predictors of educational achievement. One reason why educators are so interested in phonemic awareness is that research indicates that it is the best predictor of the ease of early reading acquisition" (as cited in Sensenbaugh, 1999).

Adams and Stanovich, leading researchers in phonemic awareness, found in their studies that phonemic awareness was the single most important factor in learning

to read or the likelihood that a student will fail (as cited in Adams, 1998). In addition, Adams found that, faced with an alphabetic script, a student's level of phonemic awareness will determine the success he or she will experience in learning to read (as cited in Richgels, 1996). Ehri stated that without phonemic awareness words are odd shapes and arbitrary symbols, difficult to remember (as cited in Murray, 1998).

It has also been found that children who are experiencing difficulty in reading, seem to lack basic phonological awareness. In their research Smith's *et al.,* (as cited in Good, Simmons and Smith, 1998) identified six prevailing findings:

1. Phonological processing explains significant differences between good and poor readers.
2. Phonological awareness may be a group of highly related, distinct phonological abilities or a general ability with multiple dimensions.
3. Phonological awareness has a reciprocal relation to reading acquisition.
4. Phonological awareness is necessary but not sufficient for reading acquisition.
5. Phonological awareness deficits and delays can be reliably identified in young children.
6. Phonological awareness is teachable and promoted by attention to instructional variables.

Research supported by the National Institute of Child Health and Human Development as explained by Lyon, "clearly indicates that deficits in the development of phoneme awareness skills not only predict difficulties learning to read, but they also have a negative effect on reading acquisition" (1998). Juel's research also agreed that children with little phonemic awareness struggled when learning to read, as compared to their peers who were phonemically aware (as cited in Murray, 1998).

As students develop their reading skills they are also developing their writing skills. Phonemic awareness may be extremely important for beginning readers, but it

may be even more important for beginning writers. Writing may be considered drawing, scribbling, writing random letters, invented spelling or writing conventionally (Fisher, 1991). In order for students to begin to use invented spelling and put words into print, they need to be able to break apart the combination of sounds that make up words and assign a symbol for each individual sound.

A certain amount of phonemic awareness is necessary for students to be able to use invented spelling in even its most basic forms. Beach (1996), found that students need at least a rudimentary level of phonemic awareness, to learn the letter-sound correspondences necessary to be able to read and write conventionally. Ball and Blachman also found phonemic awareness to be a contributor to a student's invented spelling ability (as cited in Richgels, 1996).

As researchers continue to find evidence that phonemic awareness supports early reading and writing development, they are also finding that students are further developing their phonemic awareness as they read and write. "Writing allows phonemic awareness and letter sound recognition to develop hand-in-hand because it requires children to represent the sounds they hear concretely with letters" (Heibert, Pearson, Taylor, Richardson & Paris, 1998). Yopp and Yopp concurred with these researchers when they stated that,

> "Research conducted during the last few decades has revealed that phonemic awareness is significantly related to success in learning to read and spell. The relationship is one of reciprocal causation or mutual facilitation. That is, phonemic awareness supports reading and spelling acquisition, and instruction in reading and spelling, in turn, supports further understanding of the phonemic basis of our speech" (1997).

The research leaves little doubt about the importance of phonemic awareness to early reading and writing readiness. As Fitzpatrick (1997) put it, "The implication is clear-phonemic awareness can significantly bridge the gap between inadequate

preparation for literacy and success in beginning reading." Schools that have realized the importance of phonemic awareness are now faced with the question, what do we do now?

Some students seem to have phonemic awareness and others do not. The answer seems to be the direct instruction of phonemic awareness in the early primary grades and possibly younger. When to start teaching the skills involved in phonemic awareness would depend on the developmental level of the student. The student would first need the ability to understand what is required of them and be capable of carrying out the task, before they could master a phonological awareness task (McBride-Chang, Chang & Wagner, 1997).

By kindergarten most students are at a developmental point of readiness to build on their phonological awareness abilities and learn new skills. Yopp 's study found that before a student could learn to read they must first have an awareness that words are composed of sounds (as cited in Opitz, 1998). Teachers should provide experiences and activities that demonstrate individual sounds to promote phonemic awareness, such as rhyming, alliteration, segmenting sounds and blending sounds. Ball & Blachman *et al,*. found in their research that "phonemic awareness can be developed through instruction and, furthermore, that doing so significantly accelerates children's subsequent reading and writing achievement" (as cited in Adams, 1998).

Foorman, Jenkins & Francis *et al.* also found that instructional approaches incorporating the interrelationships of phonemic awareness (hearing the sounds), phonological recoding (writing the sounds), and orthographic processing (spelling) help young children develop basic word identification and spelling skills (as cited in Joseph, 1998).

It is not being suggested that phonemic awareness instruction in itself will teach students to read or that phonemic awareness instruction should replace existing reading instruction. The research has found that phonemic awareness instruction

should be taught in conjunction with, and supportive of, other reading instruction, such as basal readers, whole language, sight word recognition, and letter sound association. However, Yopp did explain that in order for any child to receive the full benefits of reading instruction they must have a certain level of phonemic awareness (as cited in Reiner, 1998).

Stanovich also felt strongly about basic reading instruction when he stated , "That direct instruction in alphabetic coding facilitates early reading acquisition is one of the most well established conclusions in all of behavioral science" (1994). He continued by stating that, "Explicit instruction in phoneme awareness may help children avoid reading delay by gaining an early insight into workings of their alphabetic system (as cited in Murray, 1998). Adams found in her research that letter sound recognition and basic phonemic awareness are both extremely important in learning to read (as cited in Wagstaff, 1997).

Several teaching strategies were suggested by researchers for increasing phonemic awareness in young children. This included such activities as read-alouds, big books, language games, shared writings, word walls, exposure to print, and journal writing.

A "read-aloud" is when the teacher reads a story out loud to either the entire class or a small group. In kindergarten it is appropriate for the teacher to read a variety of books to the students. These may include non-fiction, poetry, fantasy or just about anything they like to hear over and over. Of the books that are read to the class many should have text that focuses on alliteration and rhyming. This type of text brings the child's attention naturally to the sounds within the words.

Rereading books and using predictable text allows the students to anticipate the text which will enhance the "read aloud" experience. Students should be encouraged to recite their favorite lines with the teacher, this in turn will promote phonemic awareness (Heibert, Pearson, Taylor, Richardson & Paris, 1998).

Books of this nature are particularly useful in helping the students notice the phonemes of words. In addition to "read-alouds", many other activities that involve rhyme, rhythm, listening and sounds are suitable ways to show the existence of phonemes (Adams, 1998). The majority of early childhood educators have a time during their school day that is devoted to these type of activities. It is often called circle time, or rug time. It gives the teacher ample opportunity to reread favorite stories, songs and poem that all help to teach phonemic awareness both direct and indirectly (as cited in Weaver, 1998). It is a comfortable and appropriate place for the young child to become phonemically aware. Teachers should take advantage and emphasize the phonemes everyday during ragtime.

Another strategy that is suggested by many researchers is the use of big books in the classroom. Big books were first introduced in the 1980's in Australia and New Zealand. They are literally big books that were designed to help the children see the text and illustrations better. They are used when the teacher is attempting to teach such skills as right to left tracking, letter recognition, and sight word recognition. Using big books the teachers can facilitate the letter/sound relationship which is a necessary skill for any beginning reader (Weaver, 1998). The big book enables a teacher to point out a single word for the entire class to see and discuss. This close attention to words and their individual sounds is direct instruction in phonemic awareness. Freppon & Dahl encouraged teachers to foster the acquisition of phonemic awareness skills by pointing to words during shared reading experiences with big books or charts (as cited in Weaver, 1998).

In addition, during rug time teachers should play different types of language games. This might involve such things as a puppet speaking to the children in an exaggerated way, stretching out the words to emphasize the phonemes (as cited in Heibert,Pearson, Taylor, Richardson & Paris, 1998). It is recommended that teachers engage students in specific activities that direct their attention to the sounds of words

(Spector, as cited in Sensenbaugh, 1999). For example a teacher may orally give the students three words (cat, hat, ball). The students must then identify the word that does not fit with the others (ie. it does not rhyme)(Fitzpatrick, 1997).

In addition to all these listening activities, it is also important for teachers to include a developmentally appropriate writing program. Reading, listening and writing skills are intertwined and therefore must all be included to achieve the highest level of phonemic awareness (Fitzpatrick, 1997). It is suggested by researchers Pinell and McCarrier that the most acceptable practice for promoting beginning writing skills is the use of writing journals. To help with this writing process, researcher Patricia Cunningham recommends the use of word walls to help students learn basic sight words. A word wall is used to help display common words used in reading and writing, a dictionary on the wall. It is placed so all the students in the room can see it and use it as a visual reference when writing and spelling. It's use varies from grade level to grade level.

Journal writing is a common practice that should start as young as kindergarten. Writing journals encourage students to " play" with letters at their ability level. Students who are not yet aware of letter/sound association often write random letters or draw pictures. As the student's ability level increases so does their journal writing, from invented spelling to conventional spelling (as cited in Heibert, Pearson, Taylor, Richardson & Paris, 1998). A writing journal is a useful assessment tool for the teacher to get a clearer picture of a student's phonemic awareness.

The importance of phonemic awareness to beginning reading success can hardly be disputed. Some children may acquire phonemic awareness without direct instruction through exposure to print, early word play and a literate environment, but many will not. Burns (1999) stated, "The greater the phonemic awareness of a beginning reader, the more fully he or she will be able to process (get into memory) the letter sound properties of individual printed words." The indication is clear, to give

every student the best opportunity to be a successful reader, phonemic awareness must be a part of the reading curriculum.

Project Objectives and Processes

As a result of the direct instruction in Phonemic Awareness during the period of September 1999 to December 1999 the kindergarteners will increase their phonemic awareness as measured by the Developmental Spelling Test, Parent Survey and Weekly Journal Checklist.

In order to accomplish the project objective, the following processes are necessary:

1. Activities that provide direct instruction in phonemic awareness.
2. Weekly opportunities for journal writing.
3. Literature that emphasizes alliteration, rhyming and sound matching appropriate to age level.

Project Action Plan

Week 1 (approximately 15-25 minutes a day)

Activity 1- Send home parent surveys and data collection letter.

Activity 2-Give the Developmental Spelling Pre Test.

Activity 3- Getting to Know My Sound - to teach sound matching. Students think of something they like that begins with the same sound as the beginning of their name. Illustrate a picture to go with it.

Activity 4- Read an ABC Book to reinforce letter sound knowledge.

Activity 5-*Rhyme Away* (story 1) - Activity to teach sound matching. Students erase part of a pre-drawn picture as teacher reads a story omitting words that would end a rhyme. Students say the missing word than erase that part of the picture.

Week 2 (approximately 15-25 minutes a day)

Activity 1- Introduce journals to begin the connection between reading and writing letter sounds.

Activity 2-*Rhyme Away* (story 2) - Activity to teach sound matching. Students erase part of a pre-drawn picture as teacher reads a story omitting words that would end a rhyme. Students say the missing word than erase that part of the picture.

Activity 3-Read a Rhyming Book to reinforce the skill of rhyming.

Activity 4- *Draw a Rhyme* (story 1) - Activity to teach sound matching. Reverse of rhyme away. Teacher reads a *Draw a Rhyme Story*. Students draw the omitted rhyme words to create a silly picture.

Activity 5- *Rhyme Time* -Activity to teach sound matching. Teacher reads a rhyming story. Teacher than rereads story omitting the matching rhyme. Students orally fill in the blank.

Week 3 (approximately 15-25 minutes a day)

Activity 1- Continue journals to reinforce the connection between reading and writing letter sounds (written language)

Activity 2-*Rhyme Away* (story 3) - Activity to teach sound matching. Students erase part of a pre-drawn picture as teacher reads a story omitting words that would end a rhyme. Students say the missing word than erase that part of the picture.

Activity 3- *Draw a Rhyme* (story 2) - Activity to teach sound matching. Reverse of rhyme away. Teacher reads a *Draw a Rhyme Story*. Students draw the omitted rhyme words to create a silly picture.

Activity 4- *Clap, Snap or Tap* - Activity to teach syllable counting. Students say their name and then try to clap out the number of syllables.

Activity 5-Read a Rhyming Book to reinforce the skill of rhyming.

Week 4 (approximately 15-25 minutes a day)

Activity 1- Continue journals to reinforce the connection between reading and writing letter sounds (written language)

Activity 2- *Odd Ball* - Activity to teach sound matching. Teacher gives class three words. Students have to identify the word that does not share a common sound.

Activity 3-*Sing a Song of Sounds* - Activity to teach sound matching. To the tune of "If You're Happy and You Know It," sing:

If your name begins with /n/, stand up

If your name begins with /n/, stand up

If your name begins with /n/, stand up and take a bow

If your name begins with /n/, stand up

Activity 4- Read an Alliteration Book to reinforce letter sounds.

Activity 5- *Clap, Snap or Tap* - Activity to teach syllable counting. Students say their name and then try to clap out the number of syllables.

Week 5 (approximately 15-25 minutes a day)

Activity 1- Continue journals to reinforce the connection between reading and writing letter sounds (written language)

Activity 2-*Sing a Song of Sounds* - Activity to teach sound matching. To the tune of "If You're Happy and You Know It," sing:

If your name begins with /n/, stand up

If your name begins with /n/, stand up

If your name begins with /n/, stand up and take a bow

If your name begins with /n/, stand up

Activity 3- Read a few Tongue Twisters to reinforce letter sounds. Have children attempt some easier ones.

Activity 4- Name Guessing Game - Activity to introduce phoneme blending. Teacher says a students name in individual phonemes: /a/ - /l/ - /e/ - /x/. Students raise their hands when they know who the mystery person is.

Activity 5- Read a Big Book/Shared Reading to build on overall phonemic awareness.

Week 6 (approximately 15-25 minutes a day)

Activity 1- Continue journals to reinforce the connection between reading and writing letter sounds (written language)

Activity 2- *Odd Ball* - Activity to teach sound matching. Teacher gives class three words. Students have to identify the word that does not share a common sound.

Activity 3- *Rhyme Time* -Activity to teach sound matching. Teacher reads a rhyming story. Teacher than rereads story omitting the matching rhyme. Students orally fill in the blank.

Activity 4- Teach a song that plays with sound to increase overall phonemic awareness (like, *Willoby Wallaby Woo.*)

Activity 5- Read a Big Book/Shared Reading to build on overall phonemic awareness.

Week 7 (approximately 15-25 minutes a day)

Activity 1- Continue journals to reinforce the connection between reading and writing letter sounds (written language)

Activity 2- *Talking Ghost* - Activity to teach phoneme blending. Students draw and cut out a picture of a ghost. Teacher gives a segmented word. Students talk

like a ghost as they say the sounds in a slowly drawn-out wail.

Activity 3- *Start & Stop* - Activity to teach syllable splitting and phoneme blending. Students are given word to say slowly. Teacher signals them with hand motions to begin. Teacher stops them after the initial consonant sound.

Activity 4- Read a few Tongue Twisters to reinforce letter sounds. Have children attempt some easier ones.

Activity 5- Read a Big Book/Shared Reading to build on overall phonemic awareness.

Week 8 (approximately 15-25 minutes a day)

Activity 1- Continue journals to reinforce the connection between reading and writing letter sounds (written language)

Activity 2- *Punch it Out* - Activity to teach syllable splitting and phoneme blending. Students use hand motions as they say words to separate and emphasize the ending sound.

Activity 3- Name Guessing Game - Activity to introduce phoneme blending. Teacher says a students name in individual phonemes: /a/ - /l/ - /e/ - /x/. Students raise their hands when they know who the mystery person is.

Activity 4- *Start & Stop* - Activity to teach syllable splitting and phoneme blending. Students are given word to say slowly. Teacher signals them with hand motions to begin. Teacher stops them after the initial consonant sound.

Activity 5- Read a Big Book/Shared Reading to build on overall phonemic awareness.

Week 9 (approximately 15-25 minutes a day)

Activity 1- Continue journals to reinforce the connection between reading and writing letter sounds (written language)

Activity 2- *Talking Ghost* - Activity to teach phoneme blending. Students draw and cut out a picture of a ghost. Teacher gives a segmented word. Students talk like a ghost as they say the sounds in a slowly drawn-out wail.

Activity 3- *Punch it Out* - Activity to teach syllable splitting and phoneme blending. Students use hand motions as they say words to separate and emphasize the ending sound.

Activity 4- *Word chant* - Activity to teach phoneme blending. Teacher uses the following chant to blend initial consonant sound with the rest of the word:

It begins with /r/
and it ends with /ed/
put them together,
and you got _____ (red)

Activity 5- Read a Big Book/Shared Reading to build on overall phonemic awareness.

Week 10 (approximately 15-25 minutes a day)

Activity 1- Continue journals to reinforce the connection between reading and writing letter sounds (written language)

Activity 2- *Turtle Talk* - Activity to teach phoneme blending. Students color and glue a paper turtle to a craft stick. Students use the turtles as a motivator to talk slowly articulating each sound in a word.

Activity 3- *Mystery Box* - Activity to teach phoneme blending. Students try to guess the identity of an object as the teacher gives phoneme clues.

Activity 4- *Patty Cake* - Activity to teach phoneme blending. Students are taught how to clap in a two to one rhythm. Then they repeat onsets and rhymes while clapping the beat.

/p/ /en/ - pen (pat, pat, clap)

Activity 5- Read a Big Book/Shared Reading to build on overall phonemic awareness.

Week 11 (approximately 15-25 minutes a day)

Activity 1- Continue journals to reinforce the connection between reading and writing letter sounds (written language)

Activity 2- *Turtle Talk* - Activity to teach phoneme blending. Students color and glue a paper turtle to a craft stick. Students use the turtles as a motivator to talk slowly articulating each sound in a word.

Activity 3- *Sounds in the Word* - Activity to teach phoneme blending. Students will repeat the following verse using two or three phoneme words to the tune of *The Wheels on the Bus*:

The sounds in the word go /d/ /o/ /g/; /d/ /o/ /g/; /d/ /o/ /g/.
The sounds in the word go /d/ /o/ /g/,
can you guess the word?

Activity 4- *Pop Up People* -Activity to teach phoneme blending. Three student sit in front of the class. Each one is given a sound to remember. The students then pop-up in order saying their sound. The class then tries to guess the word.

Activity 5- Read a Big Book/Shared Reading to build on overall phonemic awareness.

Week 12 (approximately 15-25 minutes a day)

Activity 1- Continue journals to reinforce the connection between reading and writing letter sounds (written language)

Activity 2- *Word chant* - Activity to teach phoneme blending. Teacher uses the following chant to blend initial consonant sound with the rest of the word:

It begins with /r/

and it ends with /ed/

put them together,

and you got _____ (red)

Activity 3- *Mystery Box* - Activity to teach phoneme blending. Students try to guess the identity of an object as the teacher gives phoneme clues.

Activity 4- *Patty Cake* - Activity to teach phoneme blending. Students are taught how to clap in a two to one rhythm. Then they repeat onsets and rhymes while clapping the beat.

/p/ /en/ - pen (pat, pat, clap)

Activity 5- Read a Big Book/Shared Reading to build on overall phonemic awareness.

Week 13 (approximately 15-25 minutes a day)

Activity 1- Continue journals to reinforce the connection between reading and writing letter sounds (written language)

Activity 2- *Pop Up People* -Activity to teach phoneme blending. Three student sit in front of the class. Each one is given a sound to remember. The students then pop-up in order saying their sound. The class then tries to guess the word.

Activity 3- *What Big Ears You Have?* - Activity to teach phoneme isolation. A student is chosen to "put on his/her big ears." Class sings the following verse:

Students: *listen, listen loud and clear*

what is the first sound that you hear?

Teacher: *fox, flowers, fruit and fish*

Student with the "ears" identifies the sound.

Activity 4- *Sounds in the Word* - Activity to teach phoneme blending. Students will repeat the following verse using two or three phoneme words to the tune of

The Wheels on the Bus:

The sounds in the word go /d/ /o/ /g/; /d/ /o/ /g/; /d/ /o/ /g/.

The sounds in the word go /d/ /o/ /g/,

can you guess the word?

Activity 5- Read a Big Book/Shared Reading to build on overall phonemic awareness.

Week 14 (approximately 15-25 minutes a day)

Activity 1- Continue journals to reinforce the connection between reading and writing letter sounds (written language)

Activity 2- *What Big Ears You Have?* - Activity to teach phoneme isolation. A student is chosen to "put on his/her big ears." Class sings the following verse:

Students: *listen, listen loud and clear*

what is the first sound that you hear?

Teacher: *fox, flowers, fruit and fish*

Student with the "ears" identifies the sound.

Activity 3-Send home parent surveys(post survey)

Activity 4- Give Developmental Spelling Post Test

Activity 5- Read a Big Book/Shared Reading to build on overall phonemic awareness.

CHAPTER 4

PROJECT RESULTS

Historical Description of the Intervention

The objective of this project was to increase the phonemic awareness of kindergarten students. Specific strategies for the direct instruction of phonemic awareness were selected to effect the desired changes.

The researchers sent out a pre- and post-parent survey and administered a pre- and post-developmental spelling test to all students. The researchers also kept a weekly checklist on the students' journal writing to help assess growth over time.

Direct instruction was used to teach the specific phonemic awareness skills of sound matching, syllable splitting and phoneme blending. Activities included whole group instruction and individual journal writing. Journal writing was used to transfer the phonemic knowledge to the written page. The students began instruction during the fourth week of the school year.

The original plan called for five specific strategies to be taught each week. The researchers found it to be more advantageous to introduce one or two activities and repeat one or two of the strategies from the previous week, rather than introducing five new activities each week. The researchers also found it to be beneficial to revisit some of the strategies throughout the duration of the action plan. Journal writing was not intentionally dropped from the weekly plan; however, the researchers were not able to collect journal entries every week due to school holidays and shortened schedules.

Presentation and Analysis of Results

In order to assess the effects of the direct instruction in phonemic awareness, a developmental spelling pre-test and post-test were given, a pre-survey and post-survey were sent home to parents and a weekly journal checklist was maintained throughout the intervention.

The researchers redistributed the parent survey (Appendix A) to assess increases in pre-reading skills and students' phonemic awareness. Parents were again asked to choose an easy to read book with approximately fifteen words or less on each page. Parent and student were to sit together so they could both see the book properly. Parents were instructed to casually ask questions about the book and put check marks beside the questions that were answered correctly.

The previous surveys demonstrated that most students already exhibited pre-reading skills and familiarity with books and print. At site A, 81% of the pre-reading questions were checked as correct. At site B, 72% of the pre-reading questions were checked as correct. On the post survey, at site A 100% of the pre-reading questions were checked as correct, an increase of 19%. At site B, 88% of the pre-reading questions were checked as correct, an increase of 16%.

The students also scored better on the phonemic awareness questions in the post-survey. At site A, 100% of the questions on phonemic awareness were checked as correct, a 31% increase At site B, 79% of the questions on phonemic awareness were checked as correct, a 37% increase.

As mentioned in Chapter Two, each researcher kept a weekly journal progress checklist (Appendix B). This weekly checklist consisted of nine categories that were grouped together into four developmental stages for writing. The students' writing may have evidence of more than one stage in each journal entry. The reported stage for each student was the highest stage to which they had progressed.

Stage One included using pictures to write and scribbling or using nonsense

symbols to write. Stage Two included writing random letters, copying words seen around the classroom, and writing random words from memory. Stage Three consisted of spelling the first letter of a word and attempting to sound out a word beyond the first letter. Stage Four consisted of phonetically spelling most sounds of each word combined with conventional spelling and writing in sentence form.

At site A, it was found that during the first week of the action plan, 83% of the students were at stage one in their writing, while 11% were at stage two and 6% at stage three. During the last few weeks of the action plan, 11% of the students were in stage two, 83% were stage three and 6% had progressed to stage four.

At site B, it was found during the first week of journal writing that 100% of the students were at stage two. During the last few weeks of the action plan, 39% of the students were still in stage two, 39% had progressed to stage three, and 22% had progressed to stage four.

As stated in Chapter Two, a developmental spelling test was adapted from the Darrell Morris Test (Appendix C) to aid in the assessment of skills. The Darrell Morris is commonly used to assess the developmental writing ability of first or second grade students. The researchers adapted the test by reducing the number of words tested from twenty to seven. The seven words chosen contained the widest variety of sounds. The researchers chose words they felt would be the least frustrating.

The reduction of words shortened the amount of time it took to administer the test. This allowed the researchers to observe the process of individual students in each small group. The students were assessed in groups of four or less.

The researchers explained to the students that they were to try and write each word that was read to them. The students were to do their best to write down all sounds that they heard in each word. A summation of the number of points the students received in the pre- and post-test is presented in Figures 3 and 4.

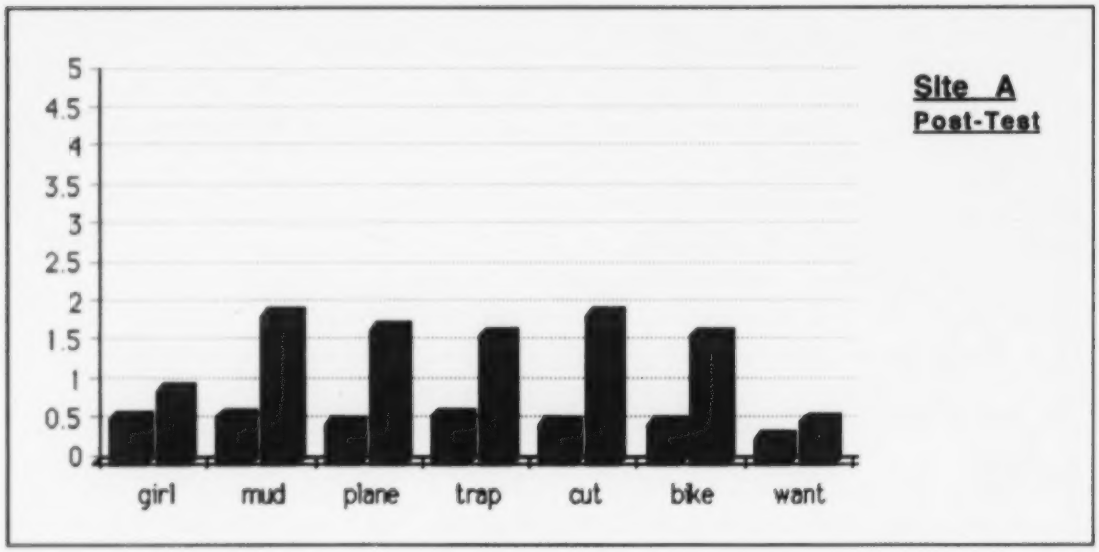

Figure 3 Results of developmental spelling test from targeted students during the Winter of 1999 - 2000 school year from Site A.

At Site A, seventeen out of eighteen students were involved in this post-testing process during the final week of the intervention. For the first word (girl), the individual scores ranged from zero to two points. The class average was 94% of one point. There was an increase of 38% of one point. For the second word (mud), the individual scores ranged from zero to five points. The class average was 1.88 points. There was an increase of 1.27 points. For the third word (plane), the individual scores ranged from zero to three points. The class average was 1.70 points. There was an increase of 1.09 points. For the fourth word (trap), the individual scores ranged from zero to five points. The class average was 1.75 points. There was an increase of 1.14 points. For the fifth word (cut), the individual scores ranged from zero to four points. The class average was 1.88 points. There was an increase of 1.38 points. For the sixth word (bike), the individual scores ranged from zero to three points. The class average was 1.64 points. There was an increase of 1.14 points. For the seventh word (want), the individual scores ranged from zero to three points. The class average was 53% of one point. There was an increase of 20% of a point.

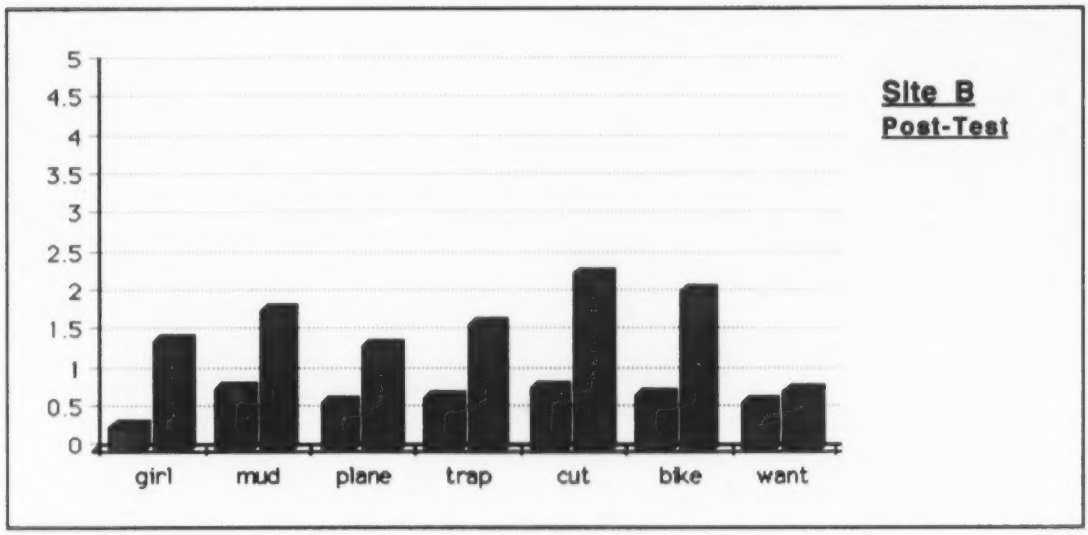

Figure 4 Results of developmental spelling test from targeted students during the Fall of 1999 - 2000 school year from Site B.

At Site B, eighteen out of eighteen students were involved in this post-testing process during the final week of the intervention. For the first word (girl), the individual scores ranged from zero to four points. The class average was 1.41 points. There was an increase of 1.02 points. For the second word (mud), the individual scores ranged from zero to five points. The class average was 1.82 points. There was an increase of 1.04 points. For the third word (plane), the individual scores ranged from zero to three points. The class average was 1.35 points. There was an increase of 74% of a point. For the fourth word (trap), the individual scores ranged from zero to five points. The class average was 1.65 points. There was an increase of 98% of a point. For the fifth word (cut), the individual scores ranged from zero to four points. The class average was 2.29 points. There was an increase of 1.51 points. For the sixth word (bike), the individual scores ranged from zero to four points. The class average was 2.05 points. There was an increase of 1.33 points. For the seventh word (want), the individual scores ranged from zero to three points. The class average was 76% of one point. There was an increase of 15% of a point .

At both sites the increase in developmental spelling scores was evident. It demonstrated an increase in phonemic awareness. At both sites students went from averaging less than the first sound in a word, to sounding out beyond the first letter in most of the words.

Conclusions and Recommendations

Based on the presentation and analysis of the data collected, the students showed a marked improvement in their phonemic awareness. The phonemic awareness skills learned during intervention activities appear to have transferred into their writing. Students were better able stretch words out and write them independently. They also showed increased ability to identify beginning sounds, to identify ending sounds, and to put sounds together to form words. Students increased their ability to manipulate sounds, to blend them together, and to substitute sounds to form new words.

The researchers felt that the majority of the activities were well received by the students. They seemed to enjoy participating and were excited by their phonemic discoveries. However, the researchers found some activities to be more appropriate for the developmental stage of the students. Each teacher must determine what is most appropriate for their student population. The researchers found it more beneficial to repeat activities as opposed to introducing several different activities. The repetition of activities helped reinforced the concepts taught. Students often requested the activities with which they were familiar.

The researchers felt journal writing was essential to the overall success of the intervention. Journal writing demonstrated to the teacher and the students the transfer of skills. The students were often unaware of the skills they were learning in the other activities until they applied them when writing in their journals. As students wrote in their journals, they made their connections between their phonemic skills and their

written words. It was exciting to see for both teacher and student.

Overall, the intervention seems to have successfully increased the phonemic awareness of the students. The researchers would recommend this type of intervention to any primary teacher who is trying to increase the phonemic awareness skills of their students. Most of the activities included in the intervention are easily implemented during short transition times (for example when a class is lining up for a special class).

In conclusion, the researchers found direct instruction of phonemic awareness to be easy to implement with great returns. Training in phonemic awareness has proved to greatly improve student's chances for later reading success. Kindergarten is a great place to start.

References

Adams, M. J., Foorman, B.R., Lundberg, I., & Beeler, T. (1998). Phonemic Awareness in Young Children: A Classroom Curriculum. Baltimore, MD: Paul H. Brookes Publishing.

Beach, S.A. (1996). "I can read my own story!" - Becoming literate in the primary grades. Young Children, 52 (1), 22-27.

Collins, J. (1997, October 27). What makes a good school: How Johnny should read. Time, 78-81.

Fisher, B. (1991). Reading and Writing in a Kindergarten Classroom. Bloomington, IN: Educational Resources Information Center.

Fitzpatrick, J. (1997). Phonemic Awarness: Playing With Sounds to Strengthen Beginning Reading Skills. Cypress, CA: Creative Teaching Press.

Good III, R.H., Simmons, D.C., Smith, S.B. (1998). Effective academic interventions in the United States: evaluating and enhancing the acquisition of early reading skills. Educational and Child Psychology, 15 (1), 56-70.

Heibert, E. H., Pearson, P. D., Taylor, B. M., Richardson, V., & Paris, S. G. (1998). Every Child a Reader, Topic Two: Concept of Print, Letter Naming, and Phonemic Awareness. Ann Arbor, MI: Center for the Improvement of Early Reading Achievement.

Joseph, L.M. (1998). Word boxes help children with learning disabilities identify and spell words. The Reading Teacher, 52 (4) 348-356.

Lapp, D., & Flood, J. (Eds.) (1997). Where's the phonics? Making the case (again) for integrated code instruction. The Reading Teacher, 50 (8), 696-700.

Lyon, G.R. (1998). Why reading is not a natural process. Educational Leadership, 55 (6), 14-18.

McBride-Chang, C., Chang, L., & Wagner, R. K. (1997). Growth modeling of phonological awareness. Journal of Educational Psychology 89 (4), 621-630.

Murray, B.A. (1998). Gaining alphabetic insight: Is phoneme manipulation skill or identity knowledge causal? Journal of Educational Psychology, 90 (3), 461-475.

Opitz, M.F. (1998). Children's books to develop phonemic awareness- for you and parents too! The Reading Teacher, 51 (6), 526-528.

Reiner, K. (1998). Developing a kindergarten phonemic awareness program: An action research project. The Reading Teacher, 52 (1), 70-73.

Richgels, D.J., Poremba, K.J., & McGee, L.M. (1996). Kindergarteners talk about print: Phonemic awareness in meaningful contexts. The Reading Teacher, 49 (8), 632-640.

Sensenbaugh, R. (n.d.). Phonemic Awarness: An Important Early Step in Learning to Read. Bloomington, IN: Education Resources Information Center.

School Report Card (1998)

Wagstaff, J.M. (1997). Building practical knowledge of letter-sound correspondences: A beginner's word wall and beyond. The Reading Teacher 51 (4), 298-304.

Weaver, C. (n.d.). Phonics in the Whole Language Classroom. Bloomington, IN: Education Resources Information Center.

Yopp, H. K., & Yopp, R. H. (1996). OO-pies and Boo-noo-noos: Songs and Activities for Phonemic Awareness. Chicago, IL: Harcourt Brace & Company.

Appendices

APPENDIX A

Parent Survey

Kindergarten Parent Survey

Dear Parents,

I am currently pursuing my master's degree from St. Xavier University. I am researching phonemic awareness in kindergarten students. As part of my action research project, I am collecting data regarding kindergartners phonemic awareness abilities. If you are willing to participate in the data collection, please read the directions below and fill out the attached survey.

Choose an easy reading book (less than 15 words on most pages) or ask your child's teacher to borrow one for this activity. Have your child sit beside you or in your lap so you can both view the book properly. Casually, ask your child the questions on the survey. Try not to make your child feel that they are being tested.

Put a check mark by the questions your child was able to answer appropriately.

If you have questions regarding any of the items on the survey, please don't hesitate to call me. Thank you for your assistance.

Please return the completed survey by _____.

Thank you!

Kindergarten Parent Survey

(Put a check, if your child can answer appropriately without further prompting)

Which page do we read first?

____ (points or shows **first page**)

Which page do we read next?

____ (points or shows **next page**)

Which way (direction) do we go when we read?

____ (points or shows **top to bottom**)

____ (points or shows **left to right**)

Where do we go when we get to the end of a line?

____ (demonstrates going from the end of one line to the beginning of next.)

How many words are on this page?

____ counted accurately (List number of words) _____

How many letters are in this word? (Choose a 3-5 letter word)

____ counted accurately (List number of letters) _____

Can you choose one word and circle it with your fingers?

____ circled **one** word

Can you tell me the names **of some** of the letters on this page?

____ identifies at least 10 letters

Can you show me a capital letter?

____ identifies a capital letter

Can you show me a small (lower case) letter?

____ identifies a lower case letter

(OVER)

Now read the book with your child. After the book or at another time ask your child the 3 questions listed below:

If we take the "p" sound out from "pat " what is left?

____ child answers "at"

What sound do you hear at the end of "bus?"

____ child answers "sss"

If we put "pop" and "corn" together, what word will we have?

____ child answers "popcorn"

APPENDIX B

Journal Progress Checklist

Journal Progress Checklist

Week Number	Using pictures to write	Scribbling or using nonsense symbols	Writing random letters	Copying words seen around the classroom	Writing random words from memory	Spelling - first letter of word	Attempting to sound out beyond first letter.	Phonetically spelling most sounds of each word, some conventional spelling.	Writing in sentence form

APPENDIX C

Developmental Spelling Test

Developmental Spelling Test

1) girl
2) mud
3) plane
4) trap
5) cut
6) bike
7) want

Name:_____

1._____

2._____

3._____

4._____

5._____

6._____

7._____